

Geometry
Final Review – Additional Problems

Name _____

Similarity

1. Solve for x : $\frac{7}{8} = \frac{x}{12}$

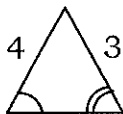
2. Solve for x : $\frac{9}{x+1} = \frac{6}{x}$

3. If $\triangle ABC \sim \triangle DEF$, then $\angle B \cong \angle$ _____ and $\frac{AB}{DE} = \frac{?}{DF}$.

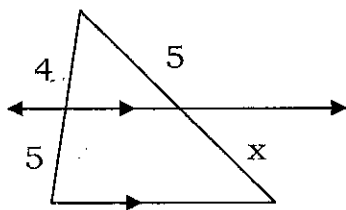
4. If $\frac{a}{b} = \frac{4}{9}$, then $\frac{a}{4} = \frac{?}{?}$.

5. The ratio of the measures of the angles of a triangle is 1:4:7. Find the measure of the three angles of the triangle.

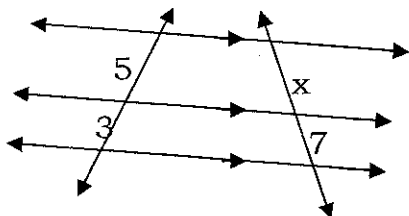
6. The 2 triangles are similar. Find x .



7. Find x .



8. Find x .



Right Triangles

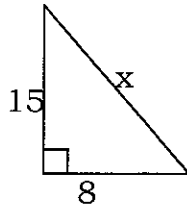
9. Tell whether a triangle formed with sides given is acute, obtuse, or right. If a triangle cannot be formed, write "not possible".

a) 2, 7, 10

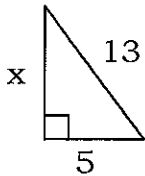
b) 2, 6, 6

c) 5, 12, 13

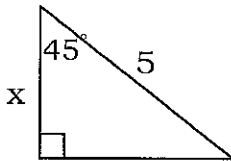
10. Find x .



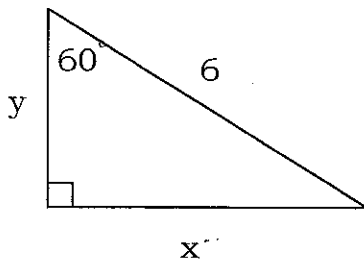
11. Find x .



12. Find x .



13. Find x and y .

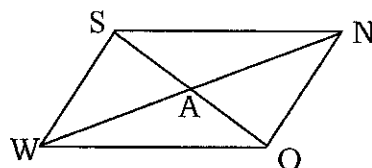


Quadrilaterals

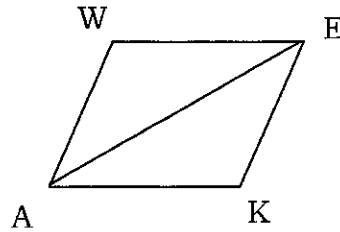
14. In an octagon, find the sum of the interior angles.

15. In a regular octagon, find the measure of one interior angle.

16. Given parallelogram SNOW. $SA = 3x - 8$, $AO = 12x - 71$, $WN = 5x + 12$. Find x and WN .



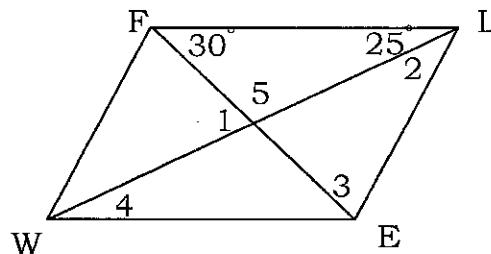
17. In rhombus WAKE, $m\angle WAE = 35$. Find $m\angle W$.



18. CFLD is a square. $FC = 5x - 18$, $FL = 2x$. Find x and $m\angle FCD$.

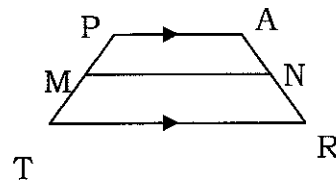
19. FLEW is a parallelogram with $m\angle WFL = 110$. Find each angle.

- a) $m\angle FLE$
- b) $m\angle 1$
- c) $m\angle 2$
- d) $m\angle 3$
- e) $m\angle 4$
- f) $m\angle 5$



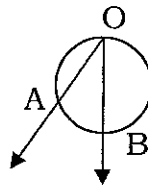
20. In trapezoid TRAP, \overline{MN} is the median (midsegment).

- a) If $TR = 10$ and $PA = 24$, find MN .
- b) If $TR = 5$ and $MN = 12$, find PA .

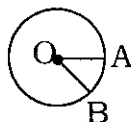


Circles

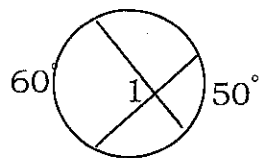
21. $m\angle AOB = 20^\circ$. $m\widehat{AB} = \underline{\hspace{2cm}}$



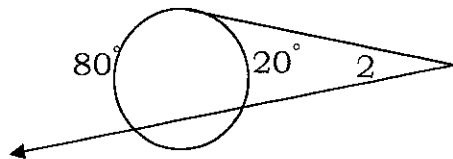
22. $m\angle AOB = 30^\circ$. $m\widehat{AB} = \underline{\hspace{2cm}}$



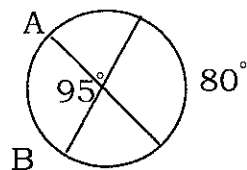
23. Find $m\angle 1$.



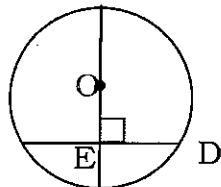
24. Find $m\angle 2$.



25. Find $m\widehat{AB}$.



26. The radius of circle O is 10. $DE = 8$. Find OE.



Areas

27. Find the area of a square with a perimeter of 28 cm.

28. Find the area of a rectangle with a width of 7 in and a diagonal of 25 in.

29. Find the area of a trapezoid with bases 6 in and 10 in and a height of 4 in.

30. Find the area of a rhombus with diagonals 8 cm and 5 cm.

31. Find the area of a circle with diameter of 18 ft.

32. Find the circumference of a circle with a diameter of 10 ft.